

Case 836

***Clavella* Oken, 1815 and *Pennella* Oken, 1815 (Crustacea, Copepoda): proposed conservation**

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Abstract. The purpose of this application is to conserve the names of two parasitic copepods, *Clavella* and *Pennella* (both of Oken, 1815), which were published in vol. 3 (Zoologie) of Oken's *Lehrbuch der Naturgeschichte*. Both names are in current use but are formally unavailable because Oken's work has been rejected on the grounds that it did not use binomial names for species (Opinion 417, September 1956). Species of *Clavella* (family LERNAEOPODIDAE Olsson, 1869) parasitize teleost fish of four orders and are widespread in both the Atlantic and Pacific; the type species *C. adunca* (Strom, 1762) is known as a parasite particularly of cod (*Gadus morhua* Linnaeus, 1758) and other *Gadus* species in the North Sea, but is also found in other fish with a wide distribution. Species of *Pennella* (family PENNELLIDAE Burmeister, 1835) are parasitic on pteropods and cephalopod molluscs, teleost fish and cetaceans.

1. The question of the status of the names first published in vol. 3 (Zoologie), 1815–1816, of Oken's *Lehrbuch der Naturgeschichte* was raised by Allen (1902) in relation to mammals. In 1944 this problem became the subject of an application to the Commission for a ruling by Dr W.H. Osgood (*Chicago Natural History Museum*) although the application was not published until 1954 (BZN 9: 202–203), after Osgood's death. A report (BZN 9: 193–201) prepared by Mr F. Hemming (then Secretary to the Commission), which included comments from zoologists concerning mainly mammal names, concluded that Oken's work was non-binomial and therefore that new names published in it were not available. The work was rejected for nomenclatural purposes and placed on the Official Index (Opinion 417, September 1956).

2. Included in Opinion 417 was an invitation to zoologists to submit applications to conserve names first published in the Oken volume, the rejection of which would lead to instability or confusion. Three names have since been conserved from the work: *Stentor* Oken, 1815 (Protista, Ciliophora) in Opinion 418 (September 1956), and *Pan* and *Panthera* (both Oken, 1816 and both Mammalia) in Opinion 1368 (December 1985).

3. Following his (1954) report on the status of Oken's (1815–1816) work (para. 1 above), Hemming sought advice from a number of specialists working on parasitic copepods as to whether, in the interests of stability, it would be desirable for Commission action to conserve from the work names used in this group. The specialists replied (in litt., 1954, 1955) as follows. Dr C. Delamere Deboutteville (*Université de Paris, Laboratoire Arago, Banyuls-sur-Mer, France*) wrote: 'Clavella

et *Pennella* doivent être conservés dans la nomenclature des Copépodes parasites; ils sont universellement connus, très employés dans la littérature. Ils ne sont pas des genres systématiques indifférents, mais de véritables chefs de file, ayant valeur non seulement d'exemples du points de vue biologique, mais de centres de cristallisations du point de vue taxonomique (*Clavellopsis*, *Clavellina* etc.). Leur disparition serait nettement préjudiciable à la science'. Dr R.Ph. Dollfus (*Laboratoire d'Helminthologie coloniale et de Parasitologie comparée, Museum national d'Histoire naturelle, Paris, France*) commented: 'En ce qui concerne *Clavella* et *Pennella*, il n'y a aucune hésitation. Ces deux noms restent parfaitement valables et il n'y a aucune raison de les rejeter'. Dr J.P. Harding (*The Natural History Museum, London, U.K.*) noted: 'I should be in favour of the validation of *Pennella* and *Clavella*. Both these names are well known in the literature of parasitic copepods'. Prof Paul L. Illg (*University of Washington, Seattle, U.S.A.*) noted: 'With regard to the rejection of Oken's *Lehrbuch*, there are two important generic names that should be validated, namely *Clavella* and *Pennella*'. Despite these statements, an application to conserve the names *Clavella* and *Pennella*, both of Oken, 1815 (p. 358), has not been made until now.

4. The nominal genus *Clavella* was based on the single species *Lernaea uncinata* Müller, 1776 (p. 226), which is therefore the type species by monotypy. In his description of *L. uncinata*, Müller referred to the figure given by Strom (1762, p. 167, pl. 1, figs. 7-8) for *L. adunca*, and noted the implication that *adunca* and *uncinata* were the same species. Müller subsequently twice changed his mind on the identity of *uncinata* (see Dollfus, 1953, p. 343). *L. adunca* and *uncinata* were synonymised by Dollfus (1953, p. 339) who noted that Müller's uncertainty had arisen because the morphology of the taxon was variable, depending on its location within the fish host and the condition of the latter. There are some 29 nominal species currently included in the genus (four of which I described myself).

5. The nominal genus *Pennella* Oken, 1815 (p. 358). Wilson (1917, p. 113) synonymised *P. diodontis* with *Pennatula sagitta* Linnaeus, 1758 (p. 819), based on a rather perfunctory statement by von Nordmann (1832, p. 122) in his study of the latter: 'Dekay hat, wie es scheint, dasselbe Thier auf einem *Diodon pilosus* gefunden'. Wilson commented that the species other than *sagitta* placed by Linnaeus in *Pennatula* are sea pens (Cnidaria, Anthozoa). Other early authors, among them Ellis, Lamarck and Esper, followed Linnaeus and placed *Pennatula sagitta* among the polyps; Nordmann (1832, pp. 52-53, 121, pl. 10, figs. 6-8) was the first to recognise *Pennatula sagitta* as a parasitic crustacean and placed it in *Pennella*. Wilson (1917, p. 105) mistakenly cited *sagitta* as the type species of both *Pennatula* Linnaeus, 1758 and *Pennella*; the valid type for *Pennatula* is *Pennatula phosphorea* Linnaeus, 1758 (p. 818) by Kükenthal's (1915, p. 81) designation. Most authors subsequent to Wilson have not accepted the synonymy of *sagitta* with *diodontis*; the latter has been recognised as a valid taxon by the most recent reviser (Hogans, 1988), who re-examined and redescribed specimens from *Diodon* (porcupine fishes).

6. The generic name *Pennella* Oken was misspelled as 'Penella' by Burmeister (1835, p. 320), who made it the type genus of a family-group PENELLINA (p. 318), corrected to PENELLINAE by Wilson (1917, p. 103). The group is currently considered to be distinct at family level (see Bowman & Abele, 1982, p. 13).

7. Both *Clavella* and *Pennella* have remained in use, attributed to Oken (1815), both before and after the publication of Opinion 417 in 1956. Both names have appeared extensively in the literature, both taxonomic and ecological, in the last 40 years. Recent works in which the names have appeared include Dollfus (1953), Yamaguti (1963), Gaevskaya & Umnova (1977), Kabata (1979), Love & Moser (1983), Pillai (1985), Castro & Baeza (1989), Luque & Farfan (1990) and Grabda (1991). A representative list of a further 15 references demonstrating usage of the names is held by the Commission Secretariat; these involve 13 additional authors and were all published within the last 23 years. On request I could easily provide another 50 citations.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to rule that the following generic names are available despite having been published in a rejected work:
 - (a) *Clavella* Oken, 1815;
 - (b) *Pennella* Oken, 1815;
- (2) to place the following names on the Official List of Generic Names in Zoology:
 - (a) *Clavella* Oken, 1815 (gender: feminine), type species by monotypy *Lernaea uncinata* Müller, 1776 (a junior subjective synonym of *Lernaea adunca* Strom, 1762);
 - (b) *Pennella* Oken, 1815 (gender: feminine), type species by monotypy *Pennella diodontis* Oken, 1815;
- (3) to place the following names on the Official List of Specific Names in Zoology:
 - (a) *adunca* Strom, 1762, as published in the binomen *Lernaea adunca* (senior subjective synonym of the specific name of *Lernaea uncinata* Müller, 1776, the type species of *Clavella* Oken, 1815);
 - (b) *diodontis* Oken, 1815, as published in the binomen *Pennella diodontis* (specific name of the type species of *Pennella* Oken, 1815).

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